REMARKS

This Amendment is responsive to the Office Action mailed September 3, 2008. Applicants request entry of these remarks, and reconsideration and allowance of the application as so amended.

Status of the Claims

Claims 1, 2, 4-10, 12-15, and 22-26 were examined.

Claims 1, 2, 4-10, 13-15, and 22-25 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Bond et al., U.S. Pat. No. 4,109,643 (hereinafter "Bond") in view of Dunlop, U.S. Pat. No. 6,939,307 (hereinafter "Dunlop").

Claim 12 stands rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Bond in view of Dunlop in further view of Tham et al., U.S. Pat. No. 5,912,656 (hereinafter "Tham").

Claim 26 stands rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Bond in view of Dunlop in further view of Falcone et al., U.S. Pat. No. 5,438,983 (hereinafter "Falcone").

The amendments

Claim 1 is amended to incorporate the subject matter of canceled claims 8-9, and to further recite a length of the first parallel bar element ... and a variable length of the second parallel bar element. These latter amendments are supported in the original specification at least at page 7 lines 4-17 and Figs. 3-4.

Dependent claims 7 and 12 are amended for consistency with claim 1.

Claim 22 is amended to incorporate subject matter of canceled claims 23 and 26, and to recite a first parallel bar graphical element whose length is indicative of a reference perfusion index value ... a second parallel bar graphical element whose length is indicative of a subsequent perfusion index value. These latter amendments are supported in the original specification at least at page 7 lines 4-17 and Figs. 3-4.

The claims present patentable subject matter and should be allowed

Claim 1 recites the display unit using first and second parallel bar elements for the presentation of the reference value and the relative deviations, respectively, where a length of the first parallel bar element represents the reference value and a variable length of the second parallel bar element represents the relative deviations.

Dunlop discloses that "[t]issue oxygen delivery is dependent on the level of perfusion or blood flow" (col. 1 lines 23-24) and that one can use a Doppler transducer (2) or "as an alternative to a Doppler transducer 2, a pulse oximeter adapted to monitor blood flow could be used as the blood flow detector (transducer)." Col. 7 lines 21-25. Dunlop also discloses a display in Fig. 3, reproduced here:

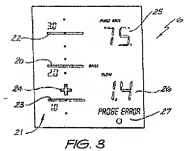


FIG. 3

in which the current blood flow measurement during a surgical operation is indicated by a cross (24) together with a line (20) indicating the "base" perfusion level measured before commencement of the operation.

However, Dunlop does not disclose or fairly suggest the display unit using first and second parallel bar elements for the presentation of the reference value and the relative deviations, respectively, where *a length of the first parallel bar* element represents the reference value and *a variable length of the second parallel bar* element represents the relative deviations.

Dunlop uses parallel bar (20) to represent the base (i.e., reference) value. The *length* of that bar does not represent the reference value. Rather, a vertical position of bar (20) represents the base value. Dunlop uses cross (24) to represent the current blood flow. Cross (24) has a fixed shape that is not variable. Rather, a vertical position of cross (24) represents current blood flow. Dunlop discloses:

> A moving flow marker 24 is also displayed. This shows the actual real-time flow rate (relative to the base bar).

> It is this marker 24 that the anaesthetist will watch carefully to obtain an indication of changes in haemodynamic function. Preferably, the flow marker is arranged to flash. Should the rate fall to the lower limit bar 23 or rise to the high limit bar 22 an audible alarm will sound and the numeric flow display 26 will flash.
>
> Dunlop col. 9 lines 9-16.

The Office cites bars (20, 22, 23) as disclosing the features of claim 8. However, none of these features identify relative deviations of the perfusion. Rather, the *cross (24)* shows these relative deviations.

Accordingly, it is respectfully submitted that claim 1 distinguishes patentably over the references.

Claim 22 recites device comprising a pulsoximeter for determining arterial O_2 saturation and for providing perfusion data, and a display unit configured to display *a first parallel bar graphical element whose length is indicative of a reference perfusion index value* derived from the provided perfusion data at a reference time, *a second parallel bar graphical element whose length is indicative of a subsequent perfusion index value* derived from the provided perfusion data at a subsequent time, and *arterial O_2 saturation determined by the pulsoximeter*. The display unit displays the first and second parallel bar graphical elements together to provide a visual indication of a relative deviation of the subsequent perfusion index value from the reference perfusion index value.

Dunlop discloses a base blood flow indicator (26) whose length is not indicative of a reference perfusion index value. Dunlop also discloses a cross (24) for indicating current blood flow. The cross (24) has constant dimensions and has no length or other dimension that is indicative of a subsequent perfusion index value.

Claim 22 also recites the display unit further configured to display arterial O_2 saturation determined by the pulsoximeter. In rejecting claim 26, the Office Action proposes to further combine Falcone to address this limitation. However, Dunlop *already* recognizes that a pulse oximeter can generate *both* arterial O_2 saturation *and* blood flow information. Dunlop col. 4 lines 23-33. Indeed, Dunlop recognizes that the

pulse oxymeter can generate arterial O_2 saturation *and* blood flow *and* pulse rate information (*see, e.g.* Dunlop col. 13 lines 46-51).

The Office Action acknowledges that the combination of Bond and Dunlop fails to disclose or fairly suggest the display unit further configured to display arterial O_2 saturation determined by the pulsoximeter, but argues that it would have been obvious in view of Bond and Dunlop to have displayed multiple physiological parameters acquired from a pulse oximeter. Office Action page 9. In fact, this is not merely obvious – it is *disclosed* in Dunlop, which displays multiple physiological parameters (blood flow and pulse rate) acquired from the Doppler transducer (2) as shown in Fig. 3, and Dunlop further expressly states that a pulse oxymeter may be substituted for the illustrated Doppler transducer (2). Dunlop col. 7 lines 21-23.

Yet, Dunlop does *not* disclose or fairly suggest the display unit further configured to display *arterial O_2 saturation* determined by the pulsoximeter. The question arises as to *why* Dunlop fails to disclose displaying O_2 saturation *even though* Dunlop has the arterial O_2 saturation information from the pulse oximeter *and* discloses displaying multiple physiological parameters acquired from the blood flow sensor. The most reasonable answer is that it was *not* obvious to do so.

Said another way, Falcone does not add anything to the Bond/Dunlop combination, which *already discloses* using a pulse oximeter as the blood flow sensor (Dunlop col. 7 lines 21-23), *and* a pulse oximeter generating arterial O_2 saturation, blood flow, and pulse rate information (see, e.g. Dunlop col. 13 lines 46-51), *and* displaying multiple physiological parameters acquired from the blood flow sensor (Dunlop Fig. 3). The Office Action acknowledges that the limitation of the display unit further configured to display arterial O_2 saturation determined by the pulsoximeter is *not obvious* given the Bond/Dunlop combination. Office Action page 8. What does Falcone *add* to the disclosure of the Bond/Dunlop combination that would somehow make this unobvious limitation obvious? Nothing.

In sum, it is respectfully submitted that the combination of Bond, Dunlop, and Falcone considered in its entirety, that is, as a whole, does *not* demonstrate that it would have been obvious at the time of Applicants' invention to configure the display unit to further display arterial O_2 saturation determined by the pulsoximeter.

For at least the foregoing reasons, it is respectfully submitted that claim 22 distinguishes patentably over the references.

For the reasons set forth above, it is submitted that claims 1, 2, 4-7, 12-15, and 22 distinguish patentably over the references of record and meet all statutory requirements. Reconsideration and allowance of claims 1, 2, 4-7, 12-15, and 22 is earnestly requested.

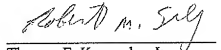
CONCLUSION

For the reasons set forth above, it is submitted that claims 1, 2, 4-7, 12-15, and 22 distinguish patentably over the references of record and meet all statutory requirements. An early allowance of all claims is requested.

In the event personal contact is deemed advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned at (216) 861-5582.

Respectfully submitted,

FAY SHARPE LLP



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